

WHAT IS CLAIMED IS:

1. A probe, comprising:

2 a probe body having a body longitudinal axis and a shoulder;

3 and

4 a microstylet mechanically coupled to and extending from the
5 shoulder and having a microstylet longitudinal axis coincident the
6 body longitudinal axis, the microstylet having a cross section
7 substantially smaller than a cross section of the probe body.

2. The probe as recited in Claim 1 wherein the microstylet
3 comprises an acerate microparticle selected from the group
4 consisting of:

5 a carbon whisker;

6 a metal needle; and

a diamond.

3. The probe as recited in Claim 1 wherein the carbon
2 nanotube is a single-walled carbon nanotube or a multi-walled
3 carbon nanotube.

4. The probe as recited in Claim 1 wherein the probe body
2 comprises a tube.

5. The probe as recited in Claim 1 wherein the probe body
2 comprises a glass tube.

6. The probe as recited in Claim 1 wherein a portion of the
2 microstylet resides within the probe body.

7. The probe as recited in Claim 1 wherein the shoulder
includes a fastigiate shoulder.

8. The probe as recited in Claim 1 wherein the probe is a
field emitter, a micromanipulator or a microinjector.

9. A method of manufacturing a probe, comprising:

2 providing a hollow probe body having a body longitudinal axis
3 and an inner wall;

4 filling at least a portion of the hollow probe body with a
5 suspension including microstylets;

6 drawing the portion to align a longitudinal axis of at least
7 one of the microstylets with the body longitudinal axis; and
8 exposing the at least one of the microstylets.

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6 a metal needle; and

7 a diamond.

14. The method as recited in Claim 13 wherein filling includes filling wherein the carbon nanotube is a single-walled carbon nanotube or a multi-walled carbon nanotube.

15. The method as recited in Claim 9 wherein filling includes filling with a suspension further comprising a menstruum having high volatility.

16. The method as recited in Claim 15 further comprising evaporating the menstruum to cause the microstylets to adhere to the inner wall.

17. The method as recited in Claim 15 wherein filling includes filling wherein the menstruum is a low carbon number alcohol.

18. The method as recited in Claim 17 wherein filling includes filling wherein the low carbon number alcohol is selected from the group consisting of:

4 methyl alcohol;

5 ethyl alcohol; and

6 isopropyl alcohol.

19. The method as recited in Claim 9 wherein drawing includes
2 applying a force aligned with the body longitudinal axis to an end
3 of the probe body.

20. The method as recited in Claim 9 wherein drawing includes
2 applying heat to the portion.

21. A probe, comprising:

2 a probe body having a body longitudinal axis and a shoulder;

3 and

4 a carbon nanotube mechanically coupled to and extending from
5 the shoulder and having a carbon nanotube longitudinal axis
6 coincident the body longitudinal axis, the carbon nanotube having
7 a cross section substantially smaller than a cross section of the
8 probe body.

22. The probe as recited in Claim 21 wherein the carbon
nanotube is a single-walled carbon nanotube or a multi-walled
carbon nanotube.